

### The translational sciences: a rare open access opportunity

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Health sciences librarians serve society by making needed health-related information available to our users. The Medical Library Association's (MLA's) slogan, "Professionals providing quality information for improved health"; the 2010 revised MLA *Code of Ethics* [1]; and the American Library Association's code of ethics [2] all reflect our profession's central purpose. One formal research study on the core values of librarians and information professionals also verified that, on the international scale, our profession seeks to provide access to quality information [3].

The pages of the *Journal of the Medical Library Association* have been alive in recent years with discussions of the National Institutes of Health (NIH) public access policy [4–7]. These discussions have included reports of impressive efforts by individual libraries to facilitate the NIH policy at the local level. While the current NIH public access policy might fall short of many health sciences librarians' open access ideals, it appears to be the most viable mechanism in place to promote the public availability of federally funded research articles in health-related subject domains.

Every MLA member, however, needs to consider 2 sobering reports on the lack of success of this policy. Zerhouni noted that by "Using 2003 data, the NLM estimated that publications resulting annually from NIH-funded research represent only about 10% of the articles in the nearly 5000 journals indexed by PubMed" [8]. Second, at a 2010 conference, a presenter estimated that 40% of those manuscripts that are supposed to be deposited into PubMed Central are simply *not* deposited [9]. While the aforementioned individual library-based programs have yielded encouraging results at the local level, these

efforts have not translated to the national level, even with the backing of a federally mandated infrastructure.

The NIH, through the National Center for Research Resources (NCRR), launched its Clinical and Translational Sciences Award (CTSA) program in 2005. The mantra "Bench to bedside to the community" pervades the CTSA program, and the program has several features designed to ultimately improve the speed with which bench scientific discoveries are "translated" to clinical use at the bedside and in the community. Related CTSA goals include promoting interprofessional and inter-institutional collaboration and improving data and curricular standards to foster and facilitate inter-institutional data sharing. Fifty-five institutions or institutional consortia now host CTSA in 28 states and the District of Columbia. The total annual budget for the CTSA program is now \$500 million per year (proposed for Fiscal Year 2011) [10]. With its wide scope and broad mandate, the CTSA program clearly holds the potential to change the face of research, teaching, and clinical care in the 21st century. Librarians and other information professionals, given their longstanding concern for speedily distributing authoritative information, should find obvious common cause with the CTSA's goal of rapid dissemination of translational research results.

The standardized NIH public access policy boilerplate language now included with all NIH funding opportunity announcements and the NIH emphasis on phase two translation (T2 research), which emphasizes enhancing access to and the adoption of evidence-based strategies in clinical and community practice, bode well for open access. Yet, astonishingly, no open access publication promotion seems to be included in the charge to any of the CTSA program's multiple committees, meet-

ings, or organizational structures. If one of the major goals of the CTSA program is to speed the delivery of scientific discoveries to the community, and the community (including any community-based research partner) does not have access, how else can the CTSA cost-effectively achieve this goal? True, the NIH public access policy will apply to all publications that come about with even partial CTSA funding. As we have learned already, a policy does not assure compliance. In any case, the NIH policy applies to only a fraction of the body of biomedical literature indexed by PubMed.

Fortunately, health sciences librarians are experts on knowledge management and are well positioned to be the recognized leaders of an effort to advocate for open access and to be catalysts for change in publication patterns within CTSA. It might be objected that MLA and the Association of Health Sciences Libraries (AAHSL) already have engaged with members' voluntary initiatives to encourage the NIH public access policy and other scholarly communication issues through committees, resources [6, 11, 12], and continuing education courses [13]. As largely voluntary efforts, these initiatives have had to be self-limited by the fact that on the national level our open-access publishing promotion activities are relatively modest endeavors.

The authors of this comment and opinion piece coordinated the "Evidence Based Scholarly Communication Conference" during 2010 that brought health sciences librarians and other knowledge management professionals together from twenty-eight institutions to discuss promoting and advocating among translational research investigators for publishing their research in open access publications [14]. Attendees agreed that the CTSA program offers an excellent opportunity for librarians to advocate for increased publication

in open access journals. The attendees at the conference recognized the current opportunity for nationwide collaboration provided by the CTSA program. These attendees also encouraged pooling our collective experience coupled with the best evidence in order to bring the weight of our profession to this effort.

Members of the research community and, ultimately, the general public will be the beneficiaries of efforts to expand open access publication [15]. A new national effort initiated by the scholarly communication committees of both MLA and AAHSL, as well as possibly the nascent MLA Translational Sciences Collaboration Special Interest Group, could actively collaborate with the CTSA programs to make widespread use of open access publication venues a reality. The CTSA program already has established an infrastructure of "Key Function Committees" (KFCs), charged with addressing many issues related to research such as community engagement, education and career development, evaluation, and informatics. A combined effort to convince the leaders of the CTSA program that a new KFC focusing on research dissemination and open access publication is needed might be one fruitful approach. Such an effort would require federal funding to support a sustained and evidence-based effort, but the impact on the availability of scientific knowledge could be significant.

Funding could cover the costs of administering a KFC (e.g., travel expenses for meetings, conference calls, and other related expenses) that focuses on improving dissemination of research results from translational investigators. Activities of such a KFC would be similar in form to the existing KFCs and would include production of white papers on key issues, development of tools, standards, and policy recommendations regarding research dissemination. Also, as with other KFCs, each funded CTSA institution would be required to name a designated representative to participate and

each would foster more continuity and broad-based representation across the nation than currently exists. The first step in moving toward a more coordinated effort would be for motivated members of appropriate MLA and AAHSL groups to pool their combined expertise with open access in general, and CTSA programs in particular, to outline a proposed action plan for the CTSA program. This plan would need to be based on the best available evidence of effective techniques to promote publication in open access venues. The plan would acknowledge documented technical, organizational, and cultural barriers to open access publication and include areas in need of further investigation. The plan would include steps needed to organize national efforts to promote open access publication across all CTSA institutions, including coordinating local efforts and possibly even funding research to continue the excellent work already undertaken to answer important questions. For example, why have translational scientists not fully embraced new open access technologies such as institutional repositories [16–18]? Research reports at the aforementioned 2010 "Evidence Based Scholarly Communication Conference" repeatedly described the difficulty of engagement with local research communities to foster incentives to encourage researchers to embrace open access dissemination.

Instead of, or in addition to, creating a new CTSA KFC to promote publication in open access venues, health sciences librarians could advocate for a new NCRF-funded program to provide resources for nationally coordinated efforts in this arena. Two projects funded by the NCRF in November 2009 are excellent examples of the size and scope of what would be required and could involve many institutions that have received CTSA programs. In one, Harvard University Medical School is leading a consortium of eight other participating institutions in a project titled, *Networking Research Resources*

*Across America*. This project is a collaborative effort to design and build a "Federated National Informatics Network that will allow any investigator across America to discover research resources that are presently invisible" [19]. The University of Florida and six other participating institutions are pursuing another NCRF-funded project called "VIVO" [19]. This project is designed to develop the open source tools, standards, and expertise needed to create a national federated database system for institutions that will feature a dynamic online directory to connect investigators with members of other institutions who have similar research interests. We envision a possible scenario in which the NCRF sponsors a new sibling program, similar to these consortia, with its component collaborative segments similarly distributed at multiple sites around the United States. This envisioned program would facilitate open access options for publishing translational research.

With these conditions and open access-oriented sentiments already in place, we can see reason for extraordinary hope. We now might be witnessing an unparalleled opportunity for our profession to advance open access publishing practices far beyond our current efforts. As noted above, there have been efforts at the local or the association level to promote the increased use of novel and emerging open-access publication venues [20]. While many of these efforts have had some local success, they have not translated to a coordinated national movement toward significant open access dissemination. The emergence of NIH-funded and -supported CTSA programs could boost this movement with a compelling momentum.

Collaboration with CTSA programs offers what may be a singular opportunity to advance publication in open access journals. As the health sciences librarianship profession continues to evolve in the twenty-first century, what better role for the health sciences librarian to play than promoting the bench-to-bed-

side premise on which CTSA is built? The profession's core values speak to seizing this new role. This kind of opportunity may not come along again for many years. Let us not miss it.

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## References

1. Medical Library Association. Code of ethics for health sciences librarianship [Internet]. Chicago, IL: The Association; 17 Dec 2010 [cited 28 Jan 2011]. <<http://www.mlanet.org/about/ethics.html>>.
2. American Library Association. Code of ethics of the American Library Association [Internet]. Chicago, IL: The Association; amended 2008 [cited 8 Nov 2010]. <<http://www.ala.org/ala/issuesadvocacy/proethics/codeofethics/codeethics.cfm>>.
3. Koehler WC, Pemberton JM. A search for core values. *J Inform Ethics*. 2000 Spr;9(1):26–54.
4. Stimson NF. National Institutes of Health public access policy assistance: one library's approach [comment and opinion]. *J Med Libr Assoc*. 2009 Oct; 97(4):238–40. DOI: 10.3163/1536-5050.97.4.002.
5. Banks MA, Persily GL. Campus perspective on the National Institutes of Health public access policy: University of California, San Francisco, library experience. *J Med Libr Assoc*. 2010 Jul;98(3):256–9. DOI: 10.3163/1536-5050.98.3.015.
6. Plutchak TS. Searching for common ground: public access policy and the Scholarly Publishing Roundtable [editorial]. *J Med Libr Assoc*. 2010 Oct; 98(4):2702. DOI: 10.3163/1536-5050.98.4.002.
7. Rosenzweig M, Schnitzer AE, Song J, Martin S, Ottaviani J. National Institutes of Health public access policy and the University of Michigan Libraries' role in assisting with depositing to PubMed Central. *J Med Libr Assoc*. 2011 Jan;99(1):97–9. DOI: 10.3163/1536-5050.99.1.018.
8. Zerhouni EA. Information access: NIH public access policy. *Science*. 2004 Dec 10;306(5703):1895.
9. Gillikin D. Resources for complying with the NIH public access policy [Internet]. Presented at Evidence Based Scholarly Communication Conference; Albuquerque, NM; 11 Mar 2010 [cited 11 Jan 2011]. <<https://repository.unm.edu/handle/1928/10987/>>.
10. National Center for Research Resources. Justification of budget request: National Center for Research Resources FY 2011 budget [Internet]. Bethesda, MD: National Institutes of Health; 2011 [cited 4 Jan 2011]. <[http://www.ncrr.nih.gov/about\\_us/budget/2011/congressional\\_justification/](http://www.ncrr.nih.gov/about_us/budget/2011/congressional_justification/)>.
11. Association of Academic Health Sciences Libraries. Open access toolkit [Internet]. Seattle, WA: The Association [cited 7 Feb 2011]. <[http://www.usc.edu/hsc/nml/aaahl/open\\_access\\_toolkit.html](http://www.usc.edu/hsc/nml/aaahl/open_access_toolkit.html)>.
12. Medical Library Association. MLA scholarly communication issues [Internet]. Chicago, IL: The Association [cited 7 Feb 2011]. <<http://www.mlanet.org/resources/publish/>>.
13. Phillips H, Kroth P. Scholarly communication toolkit: all you need to know from copyright to advocacy [continuing education course] [Internet]. Chicago, IL: Medical Library Association; 2010 [cited 7 Feb 2011]. <<http://www.cech.mlanet.org/node/544/>>.
14. Kroth PJ, Phillips HE, Eldredge JD. Evidence-based scholarly communication: information professionals unlocking translational research. *Evid Based Libr Inf Pract*. 2010 Dec;5(4): 108–14.
15. Chan L, Arunachalam S, Kirsop B. Open access: a giant leap towards bridging health inequities. *Bull World Health Organ*. 2009 Sep;87(9):631–3.
16. Thomas WJ. NIH mandate one year on: how are libraries responding? *Ser Libr*. 2010;58(1–4):257–62.
17. Hutchens C. From picas to pixels: an interview with Suzanne Bell, administrator of the University of Rochester's new open source institutional repository, UR Research. *Ser Rev*. 2010;36(1):37–9.
18. Creaser C. Open access to research outputs—institutional policies and researchers' views: results from two complementary surveys. *New Rev Acad Libr*. 2010 Apr;16(1):4–25.
19. National Center for Research Resources. Recovery Act funds awarded to enhance scientist and resource networking [Internet]. Bethesda, MD: National Institutes of Health; Nov 2009 [cited 4 Jan 2011]. <[http://www.ncrr.nih.gov/the\\_american\\_recovery\\_and\\_reinvestment\\_act/20091102.asp](http://www.ncrr.nih.gov/the_american_recovery_and_reinvestment_act/20091102.asp)>.
20. Medical Library Association and Association of Academic Health Sciences Libraries. The NIH public access policy advances science and promotes healthy people [Internet]. Chicago, IL, and Seattle, WA: The Associations; 2009 [cited 4 Jan 2011]. <[http://www.mlanet.org/government/gov\\_pdf/2009-jan\\_nih%20plcy\\_stmnt.pdf](http://www.mlanet.org/government/gov_pdf/2009-jan_nih%20plcy_stmnt.pdf)>.